

FIG. 1

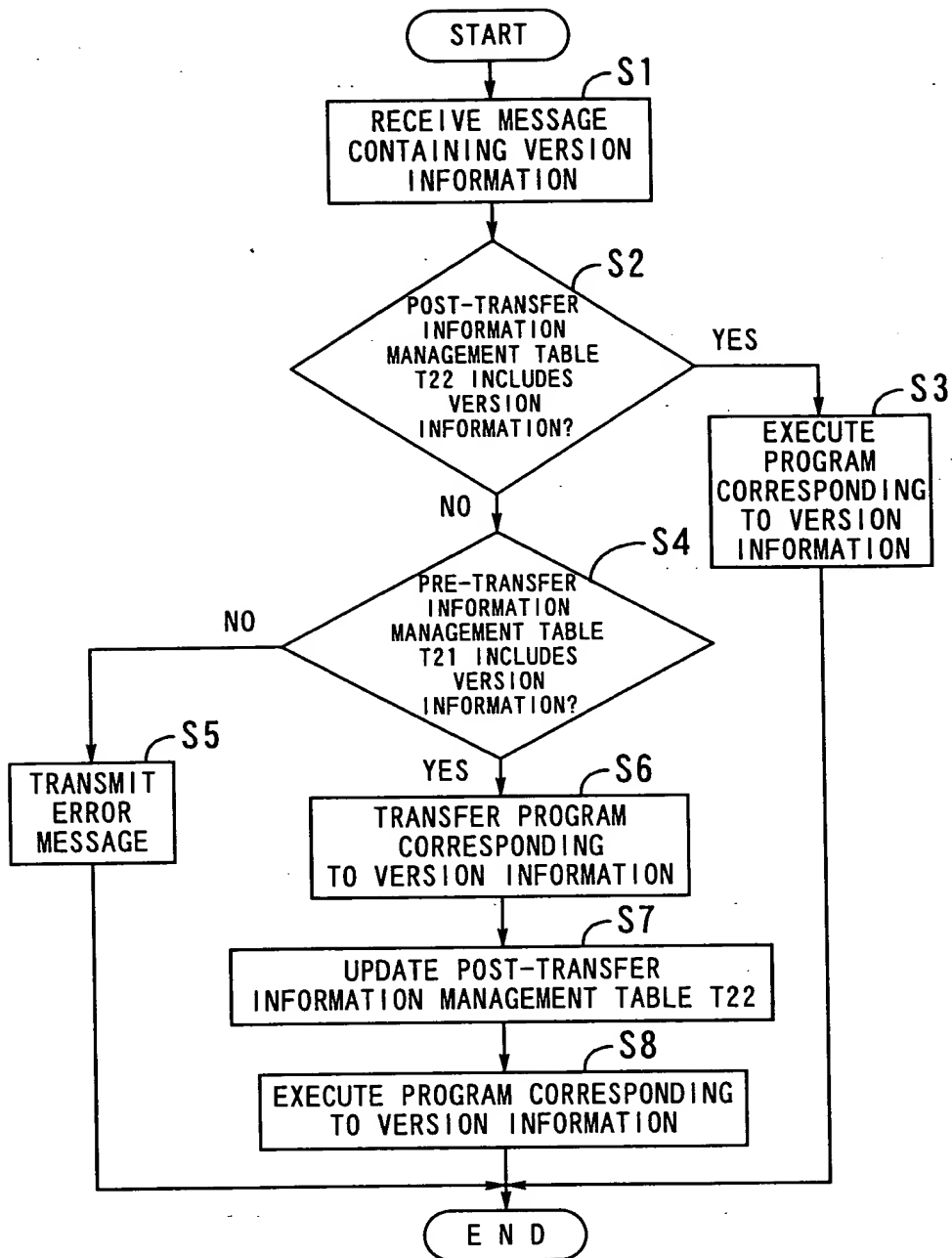


FIG. 2

00000251000000

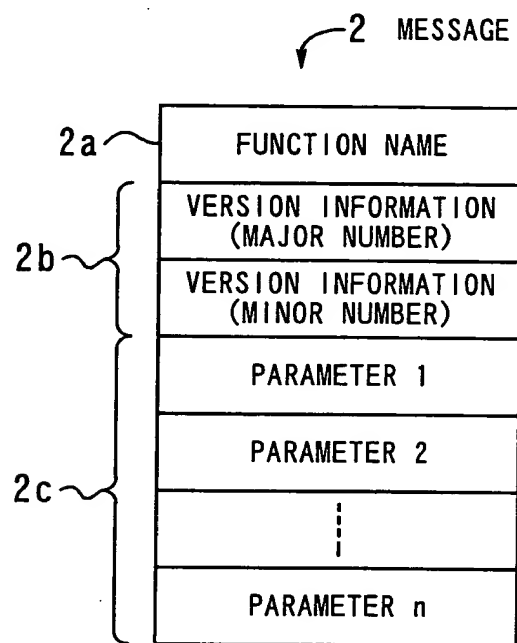


FIG. 5

FIG. 7 (A)

Na ↗ namespace XXX 1_01 {
 class XXX {
 class YYY {
 public:
 void foo (CORBA::ULong major_version,
 CORBA::ULong minor_version,
 ...parameter_1
 ...
 ...parameter_n);
 ...
 };
 };
 };

FIG. 7 (B)

Nb ↗ namespace XXX 1_02 {
 class XXX {
 class YYY {
 public:
 void foo (CORBA::ULong major_version,
 CORBA::ULong minor_version,
 ...parameter_1
 ...
 ...parameter_n);
 ...
 };
 };
 };

T1' COMPONENT-VERSION-INFORMATION DEFINITION FILE

T1a		T1b		T1c	T1d
VERSION OF ENTIRE SYSTEM		NAME OF BEHAVIOR-PROCESSING COMMON LIBRARY		VERSION OF BEHAVIOR-PROCESSING COMMON LIBRARY	PROCESS NAME
MAJOR NUMBER	MINOR NUMBER				
1	01	I i b A P L - A .	s o	1 . 0 1	process-1
1	01	I i b A P L - B .	s o	1 . 0 1	process-2
1	01	I i b A P L - C .	s o	1 . 0 1	process-2
1	01	I i b A P L - X .	s o	1 . 0 1	process-n
1	02	I i b A P L - A .	s o	1 . 0 2	process-1
1	02	I i b A P L - B .	s o	1 . 0 1	process-2
1	02	I i b A P L - C .	s o	1 . 0 2	process-2
1	02	I i b A P L - X .	s o	1 . 0 2	process-n
1	03	I i b A P L - A .	s o	1 . 0 2	process-1
1	03	I i b A P L - B .	s o	1 . 0 2	process-2
1	03	I i b A P L - C .	s o	1 . 0 3	process-2
1	03	I i b A P L - X .	s o	1 . 0 3	process-n

FIG. 8

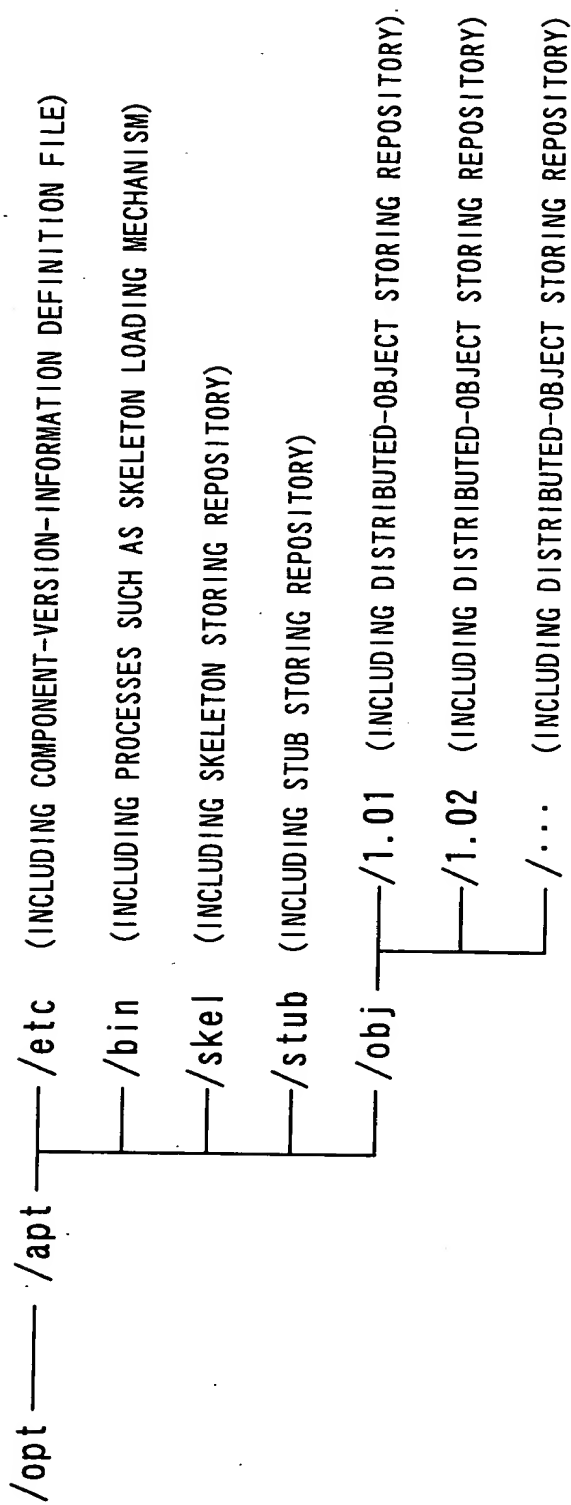


FIG. 9

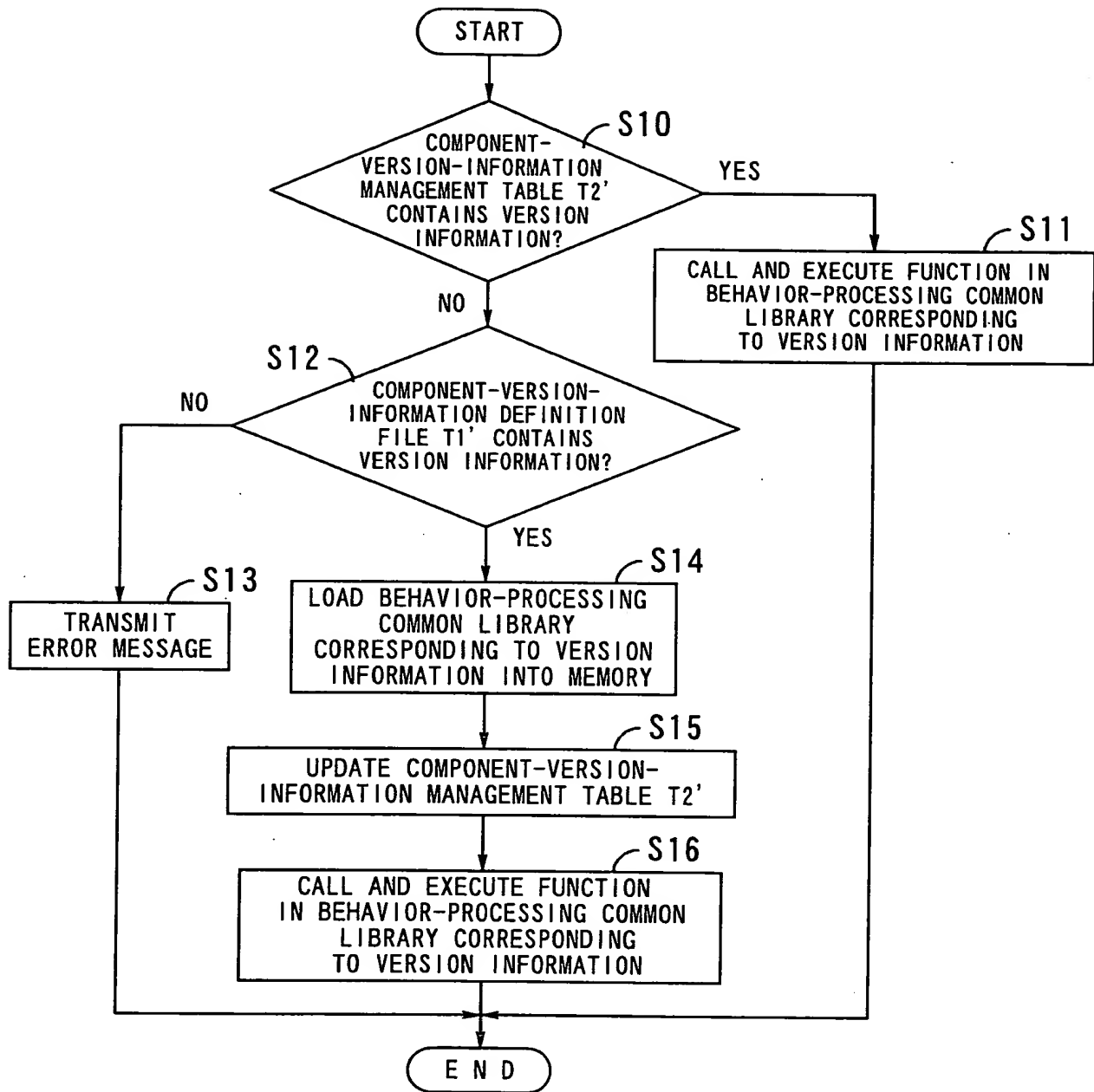


FIG. 11

T2-1 COMPONENT-VERSION-INFORMATION MANAGEMENT TABLE

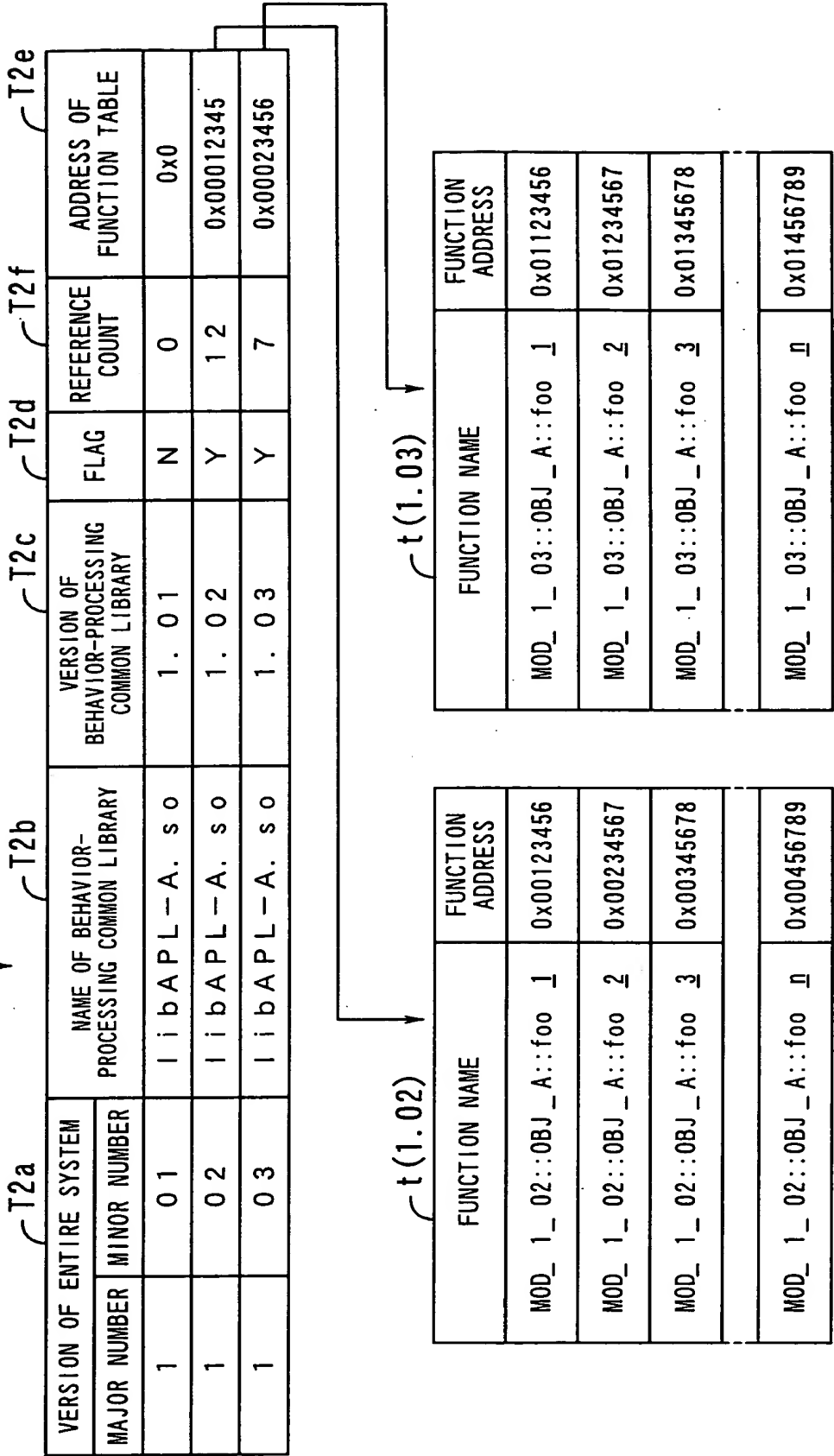


FIG. 12

```
graph TD; START([START]) --> S20[DECREMENT REFERENCE COUNT (T2f-1)]; S20 --> S21{REFERENCE COUNT T2f=0?}; S21 -- NO --> S24[CONTINUE PROCESSING]; S21 -- YES --> S22{COMPONENT-VERSION-  
INFORMATION MANAGEMENT  
TABLE T2-1 CONTAINS  
NEWER VERSION?}; S22 -- NO --> S24; S22 -- YES --> S23[RELEASE MEMORY  
FROM OLDER VERSION  
OF BEHAVIOR-PROCESSING  
COMMON LIBRARY]; S23 --> S24; S24 --> END([END]);
```

The flowchart illustrates the process for updating the behavior processing common library. It begins with a 'START' terminal, leading to step S20: 'DECREMENT REFERENCE COUNT (T2f-1)'. This leads to decision S21: 'REFERENCE COUNT T2f=0?'. If the answer is 'NO', the process proceeds to step S24: 'CONTINUE PROCESSING'. If the answer is 'YES', it proceeds to decision S22: 'COMPONENT-VERSION-INFORMATION MANAGEMENT TABLE T2-1 CONTAINS NEWER VERSION?'. If the answer to S22 is 'NO', it proceeds to S24. If the answer is 'YES', it proceeds to step S23: 'RELEASE MEMORY FROM OLDER VERSION OF BEHAVIOR-PROCESSING COMMON LIBRARY'. After S23, the process proceeds to S24. Finally, S24 leads to the 'END' terminal.

FIG. 13

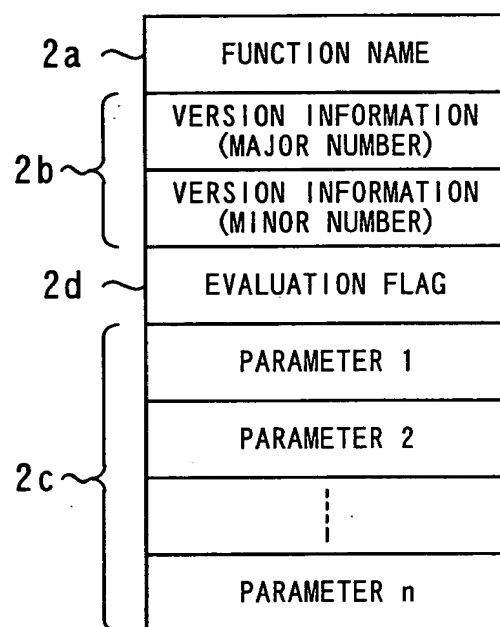


FIG. 14

```

module XXX {
  interface YYY {
    void foo (in unsigned long major_version,
              in unsigned long minor_version,
              in boolean eval,
              ...parameter_1  ← EVALUATION FLAG
              ...
              ...parameter_n);
    ...
  };
};

```

FIG. 15

```

namespace XXX 1_01 {
    class XXX {
        class YYY {
        public:
            void foo (CORBA::ULong major_version,
                     CORBA::ULong minor_version,
                     CORBA::Boolean eval,
                     ...parameter_1
                     ...
                     ...parameter_n);
            ...
        };
    };
};

```

EVALUATION FLAG

FIG. 16

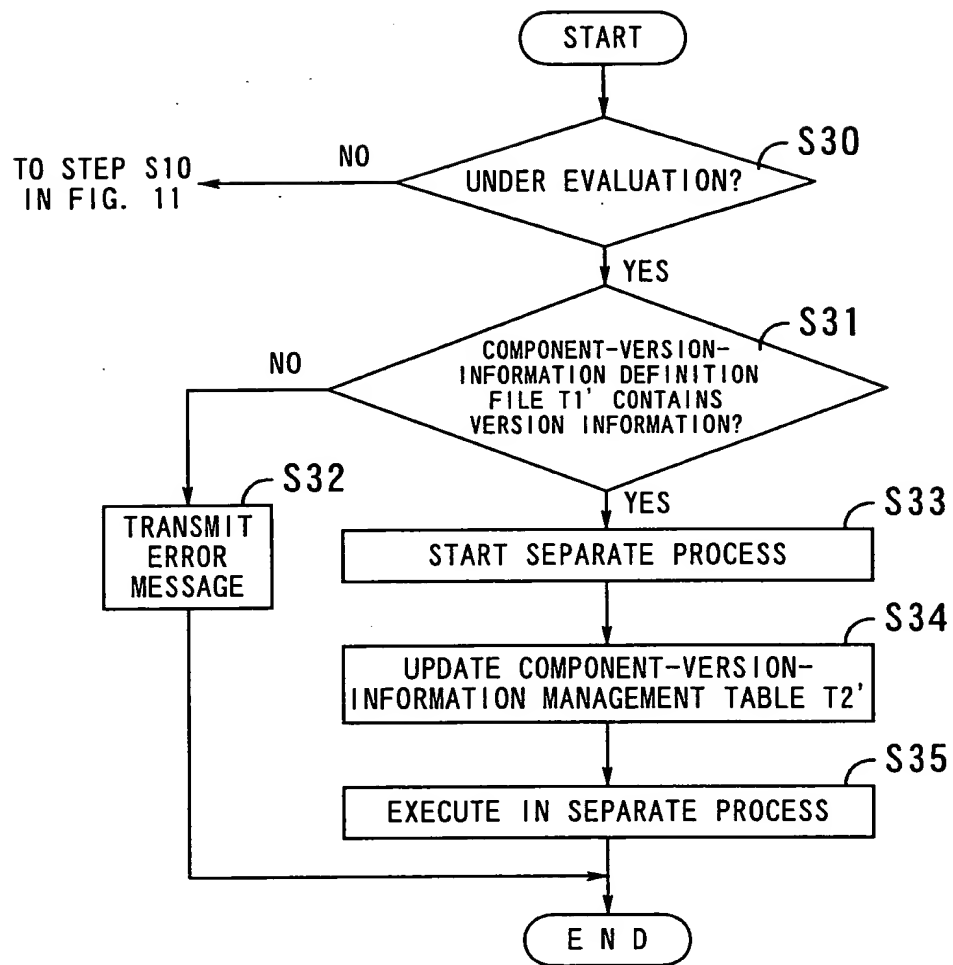


FIG. 17

T2-2 COMPONENT-VERSION-INFORMATION MANAGEMENT TABLE

VERSION OF ENTIRE SYSTEM		T2a		T2b		T2c		T2d		T2f		T2g		T2e	
MAJOR NUMBER	MINOR NUMBER	NAME OF BEHAVIOR-PROCESSING COMMON LIBRARY		VERSION OF BEHAVIOR-PROCESSING COMMON LIBRARY		FLAG		REFERENCE COUNT		EVALUATION COUNT		ADDRESS OF FUNCTION TABLE			
1	01	libAPL-A. so		1. 01		N		0		0		0x0			
1	02	libAPL-A. so		1. 02		Y		1 2		0		0x00012345			
1	03	libAPL-A. so		1. 03		Y		7		0		0x00023456			

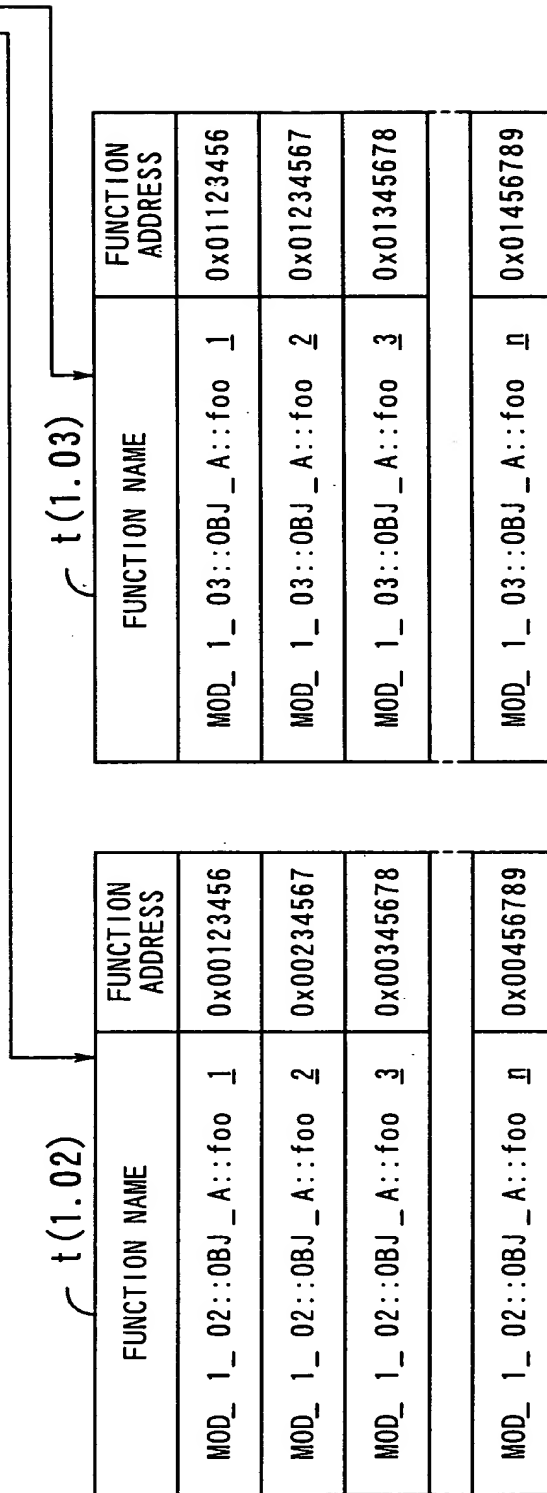


FIG. 18

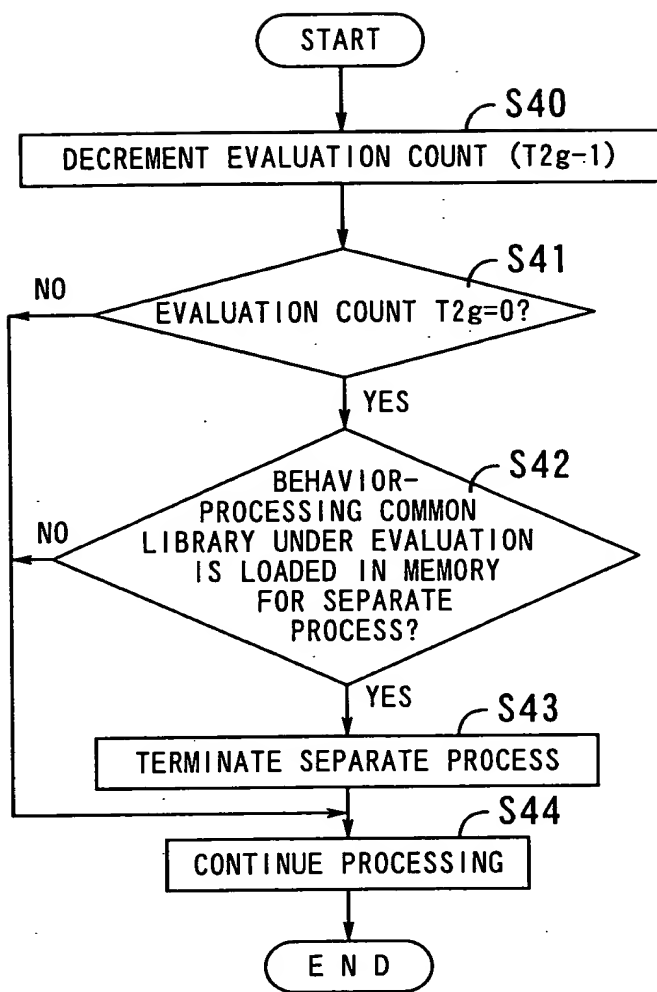


FIG. 19

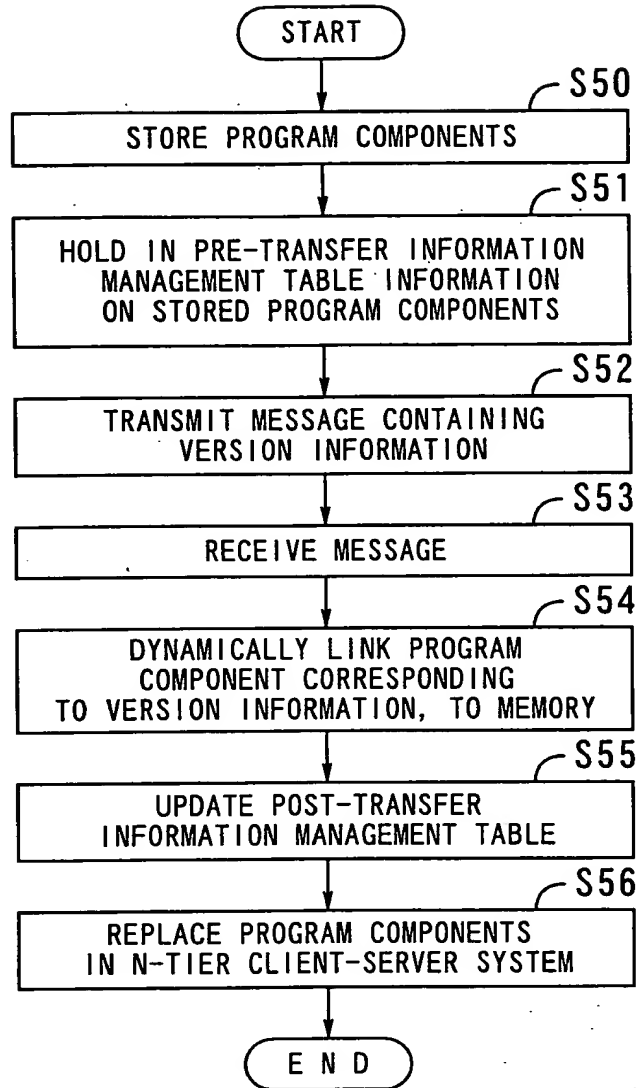


FIG. 20